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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Giuseppe Mastrangelo

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1259

7590

09/22/2005

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EXAMINER

LIU, SHUWANG

ART UNIT

PAPER NUMBER

2634

DATE MAILED: 09/22/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/731,500

Applicant(s)

MASTRANGELO, GIUSEPPE

Examiner

Shuwang Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 July 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments filed 03/22/05 have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference reasonably and properly meets the claimed limitation as rejected.

(1) regarding claims 1 and 7:

Applicant's argument – “ The Kaku et al. patent does not compare parameters of the data signal at two points directly which allow the circuitry to be simplified, as in Applicant's currently amendment independent claim 1. The Kaku et al patent describes a line equalizing method wherein multi-tone signals superimposed on a transmission signal are extracted, judged and the receiver signal equalized accordingly. Applicant's invention does not include the step of extracting the signal, as in Kaku et al. patent.”

Examiner's response –As shown in figures 14 (a) and (b) and disclosed in column 17, lines 1-7 and column 23, lines 34-41, Kaku et al. discloses the calculation (measurement) of the power level of incoming data signals at two predetermined spaced points (71 and 72). As disclose in column 1, lines 45-52, the both of AGC and LEQ perform to adjust the attenuation level (power level) for each deteriorated frequency characteristic during the training process. The AGC and LEQ of Kaku et al. are together as an automatic gain control converters in broad meaning. Therefore, the calculation of power level of two frequencies (71 and 72) is obtained by measuring the

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content of automatic gain control converters via extracting of the data signal. It is noted that the features upon which applicant relies (i.e., no step of extracting the signal and no compare parameters of the data signal at two points directly which allow the circuitry to be simplified) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

(2) regarding claim 14:

Applicant's argument – "None of the cited references includes a method which provides to installer an indication of the measurement comparison stasis, as In Applicant's invention."

Examiner's response –see col. 8, lines 17-21 and 29-34, col. 25, lines 2-1.

(3) regarding rejection under 35 USC 112:

The rejection under 35 USC 112, 2<sup>nd</sup> paragraph is withdrawn because the amendment.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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3. Claims 1-3, 5-9, 11, 14 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by Kaku et al. (EP 0798875, listed in the IDS filed 4/20/01, "Kaku" hereinafter).

Regarding claim 1, Kaku teaches a method of installation of a receiver to receive broadcast data which is broadcast to the location of the receiver (col. 3, lines 21-32, col. 4, lines 7-10), said method comprising: measuring the power level of incoming data signals at two predetermined spaced points on the signal band by measuring the content of automatic gain control converters within the receiver (col. 4, lines 11-19, col. 8, lines 17-21), providing an amplitude correction filter which can be selectively operated on the data signals allow the correction of amplitude variations with frequency, the selective operation of the filter dependent upon and responsive to the power level measurements obtained (col. 8, lines 29-34).

Regarding claim 2, wherein obtaining the power level measurements occurs automatically and is followed by any required correction as pad of an automatic installation procedure (col. 4, lines 7-10, col. 36, lines 13-21).

Regarding claim 3, wherein two measurements are taken, referred to as the high end signal and the low end signal (col. 8, lines 17-21).

Regarding claim 5, wherein if the difference in power level between the points is greater than a predetermined level then the power level to said broadcast data receiver is adjusted so that the incoming signal is within a known power range (col. 25, lines 6-19).

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Regarding claim 6, the method utilizes the ability to use relative signal power level rather than absolute power level to install the receiver (col. 8, lines 29-34).

Regarding claim 7, Kaku teaches an apparatus for receiving broadcast digital data which is transmitted and received by the apparatus and passed to the receiver via an radio frequency input from the data carrying network (col. 3, lines 21-32, col. 4, lines 7-10), said receiver comprising: a linearization circuit which can be selectively activated to operate with the receiver control system upon comparison of measurements of the power levels at two predetermined points on the signal passed to the radio frequency input and, if the comparison reveals a difference which is greater than a predetermined level, the linearization circuit is activated to adjust the receiver settings during an installation procedure for the broadcast data receiver at a location at which the receiver is to be subsequently used (col. 8, lines 17-21 and 29-34, col. 25, lines 2-19).

Regarding claim 8, wherein said receiver is connected to a data supply network in which the data is carried by a cable network (col. 1, lines 4-6).

Regarding claim 9, wherein said linearization circuit is selectively activated automatically by said receiver control system upon specified criteria for activation being met (col. 25, lines 2-19).

Regarding claim 11, wherein said linearization circuit performs cable slope correction internally in said broadcast data receiver and this can be applied to improve the performance of the broadcast data receiver at the location of installation (col. 25, lines 6-19).

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Regarding claim 14, Kaku teaches a method of installation of a receiver to receive digital data which is broadcast to the location of the receiver (col. 3, lines 21-32, col. 4, lines 7-10), said method comprising: measuring the power level of incoming frequency signals at two predetermined spaced points on the signal band (col. 4, lines 11-19, col. 8, lines 17-21), providing means for the comparison of the measurements and if the comparison shows a value within a predetermined parameter an indication is provided to the installer and if the comparison shows a value out with the predetermined parameter a control system in the receiver adjusts the operation of one or a combination of components within the receiver until the value is within the predetermined parameter (col. 8, lines 17-21 and 29-34, col. 25, lines 2-19).

Regarding claim 15, wherein the control system adjusts the operation with reference to at least one algorithm in the control system (col. 25, lines 2-19, Figs. 24, 25, 27).

### ***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. Claims 12, 13 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku et al. (EP 0798875, listed in the IDS filed 4/20/01, "Kaku" hereinafter) in view of Bazes et al. (U.S. Patent No. 5,991,339, "Bazes" hereinafter).

Regarding claims 12 and 16, Kaku teaches the claimed invention (see the rationale applied to claims 11 and 14 above), but does not particularly teach changing the values of the inductors, capacitors and/or resistors to obtain one of a number of equalization slopes to bring the difference between the high end signal and low end signal within a specific margin.

However, the use of adjustable inductors, capacitors and/or resistors to control the frequency response of an equalizer is well known in the art. Bazes teaches an adaptive equalizer that can adapt to various transmission medium lengths and signal degradation levels (abstract). The transfer function of the equalizer may be controlled by the adjustment signal that specified the resistance value (col. 2, lines 63-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to adjust the values of resistors to control the frequency response of the equalizer such that the equalizer can adapt to various transmission medium lengths and signal degradation levels.

Regarding claim 13, Kaku in view of Bazes does not teach that the specific criteria is for a difference between the high end and the low end signal values greater than 10 dB. However, the selection of the difference value as the specific criteria would not change the operation of the system of Kaku/Bazes. Such value is arbitrarily selectable to meet the system requirement such as error tolerance of the error caused



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by attenuation. Therefore, the claimed value of 10 dB is clear a matter of design choice, dictated by the system requirement and user's need.

6. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku et al. (EP 0798875, listed in the IDS filed 4/20/01, "Kaku" hereinafter) in view of Leung et al. (U.S. Patent No. 6,542,540, "Leung" hereinafter).

Kaku teaches the claimed invention (see the rationale applied to claim 1 above), but does not particularly teach that no linearization via the filter is performed if the high end signal level is greater than the low end signal level. However, whether to perform linearization for a particular situation is merely a design option, dictated by the user's error tolerance for the error caused by the attenuation. Leung teaches that high frequency boost is not required when the high frequency attenuation is relatively small (col. 6, lines 1-3). Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made not to perform linearization when the high frequency is small, so as to reduce the cost and initialization of the modem.

7. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Kaku et al. (EP 0798875, listed in the IDS filed 4/20/01, "Kaku" hereinafter) in view of Porter et al. (U.S. Patent No. 6,167,081, "Porter" hereinafter)

Kaku teaches the claimed invention (see the rationale applied to claim 8 above), but does not particularly teach that the install activates the linearization circuit upon receiving an indication that specified criteria have been met. However, such feature is

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well known in the art. Porter teaches a receiver that activates the equalizer when receiving an indication that specified criteria have been met (col. 6, lines 50-67).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to incorporate the feature of activating linearization circuit as claimed, so as to activate the linearization circuit only when required and consequently to save the cost and time caused by the linearization circuit.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

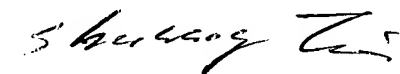
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9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is 571 272-3036.

The examiner can normally be reached on M-F, 7:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on 571 272-3056. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Shuwang Liu  
Primary Examiner  
Art Unit 2634

September 20, 2005